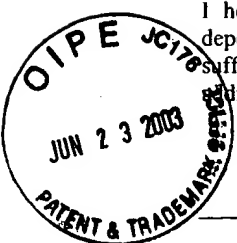


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Anastasia Heffner

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6-19-03

Date of Signature

Case No. 659/489
KC Ref. No. 13,823/14,370

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Fell et al.

Serial No.: 09/215,951

Examiner: A. Chevalier

Filed: December 18, 1998

Group Art Unit: 1772

For: STRETCHABLE COMPOSITE
MATERIAL HAVING
CONTINUOUS GATHERS

APPELLANTS' BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is an appeal from the Final Rejection dated October 21, 2002 of claims 1-12, 14-18 and 48-50.

(1) REAL PARTY IN INTEREST

The present application is owned by Kimberly-Clark Worldwide, Inc.

(2) RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on this appeal.

(3) STATUS OF CLAIMS

Claims 1-12, 14-18 and 48-50 are pending herein, and all are appealed.

(4) STATUS OF AMENDMENTS

The claims were rejected in a Final Office Action, mailed October 21, 2002 [Paper No. 26]. No amendments were filed after the Final Office Action. The claims are presented in the form as finally rejected in the attached Appendix.

(5) SUMMARY OF INVENTION

In an embodiment of the invention, there is provided a stretchable composite material comprising a first layer and a second layer (p. 4, line 3, Fig. 1A); at least one elongated elastic member, elongated elastic members located between the first and second layers and being in contact with the first and second layers (p. 4, lines 4 and 19-29); and regions of securement securing the elastic members, first and second layers (p. 5, lines 7-26, Figures 21-22). The stretchable composite material has a maximum elongation of at least about 85% of the elongation of the elastic member (p.7, lines 6-10).

In another embodiment, there is provided a stretchable composite material comprising a first layer and a second layer made of a breathable material (p. 4, line 14); at least two elastic members positioned in between the first and second layers (p. 4, lines 4 and 19-29, Figure 1A); and regions of securement securing the elastic members, the first layer and the second layer and comprising attached zones which extend traverse and across a majority of the elastic members (p. 6, lines 14-21; p. 18, lines 14-20, Figures 23

and 24). The stretchable composite material has a maximum elongation of at least about 85% of the elongation of the elastic members (p.7, lines 6-10).

(6) ISSUES

- 1. Whether Claims 1, 3, 5-9, 15, 17, 18 and 48-50 are anticipated under 35 U.S.C. § 102(b) by U.S. Patent 3,371,668 to Johnson.**
- 2. Whether Claims 1, 2, 4, 6-9, 15, 17 and 18 are anticipated under 35 U.S.C. § 102(b) or rejected over 35 U.S.C. § 103(a) by U.S. Patent 5,209,801 to Smith.**
- 3. Whether Claims 1, 3 and 5-18 are anticipated under 35 U.S.C. § 102(b) or rejected over 35 U.S.C. § 103(a) by U.S. Patent 5,706,524 to Herrin et al.**
- 4. Whether Claims 1, 2, 4, 6-9, 15, 17 and 18 are unpatentable under 35 U.S.C. § 103(a) over Smith in view of U.S. Patent 4,720,415 to Vander Wielen et al.**
- 5. Whether Claims 1, 3, and 5-18 are unpatentable under 35 U.S.C. § 103(a) over Herrin et al. in view of Vander Wielen et al.**
- 6. Whether Claims 2 and 4 are unpatentable under 35 U.S.C. § 103(a) over Johnson or Herrin et al. in view of Smith.**
- 7. Whether Claims 10-14 and 16 are unpatentable under 35 U.S.C. § 103(a) over Johnson in view of Dobrin.**

(7) GROUPING OF CLAIMS

The claims are one group that stand or fall together and include claims 1-12, 14-18 and 48-50.

(8) ARGUMENT

1. Description of the Invention

Appellants have developed a stretchable composite material which includes elastic members situated between two layers and attached to the layers at various point through regions of securement. The orientation of the elastic materials and of the regions of securement coordinate to provide a composite material which has increased maximum

elongation, expressed as the elongation of the composite as a percentage of the elongation of the elastic members. Composites of the present invention provide for a maximum elongation of at least about 85% of the elastic member. The composites may further have a structure which includes regions of securement, and zones of attachment.

2. Summary of Prosecution

The Examiner has illustrated a fundamental misunderstanding of the law and technology at issue in this case. This is the second appeal that applicants have been required to take in this case. In the first appeal, the Examiner had entered a final rejection based upon anticipation, even though the references relied upon did not disclose each and every element of the claims. After forcing Applicants to the burden and expense of filing an Appeal Brief, the Examiner withdrew the rejections.

The Examiner's misunderstanding of both the law and technology, however, has continued. In the present rejection, the Examiner ignores the claim language and instead relies upon truncated quotes from Applicants' arguments and the Specification. The Examiner's fundamental misunderstanding of the law also continues by treating a patent that issued **after** Applicants' filing date as a 35 U.S.C. § 102(b) reference. These fundamental and basic errors in law and fact have greatly increased Applicants' costs and have prevented Applicants from obtaining the protection for their invention that they are entitled to.

3. The Examiner has Made Numerous Errors in the Answers to Applicants' Arguments Section of the Final Office Action

In the Final Office Action [paper no. 26], the Examiner has ignored the claim limitations and instead has seized upon a truncated quote from Applicants' arguments as the basis for sustaining the rejections of the pending claims. Thus, the Examiner stated that "The limitation on which Applicant relies 'of at least about 85% of the [maximum] elongation of the elastic member' is not stated in the claims." (Final Office Action, p. 3, lines 18-19 [paper no. 26], quoting Applicants' Amendment [paper no. 25]). With respect to this quote, the relevant portion of Applicants' argument in Applicants' Amendment [paper no. 25] states:

Applicants respectfully assert that this recitation of the Office Action improperly suggests that the recitation of “elongation of an elastic member” refers to the maximum elongation of the elastic member *while* the composite is being stretched, rather than the claimed ratio of the elongation of an elastic member with reference to the maximum elongation of the composite. **In other words**, (1) an elongated elastic member includes a certain maximum elongation (i.e., the elongation of the elastic member(s))...

(emphasis in original, bold added, Amendment, p. 5, line 32 through p. 6, line 6).

Thus, by omitting the phrase “In other words” when citing to Applicants’ Amendment, the Examiner has seized upon Applicants’ alternate way of explaining a claim limitation and has relied upon this truncated statement, rather than the actual claim language itself, as a basis for rejecting the claims. From the portion of Applicants’ Amendment cited above is clear that the claim limitation “the composite having a maximum elongation of at least about 85% of the elongation of the elongated elastic member” found in independent claims 1 and 48 is the claimed **ratio** of the elongation of an elastic member with reference to the maximum elongation of the composite. Yet, the Examiner has ignored this claim limitation and has instead quoted a small portion of Applicants’ arguments out of context. By ignoring the ratio of the elongation of an elastic member with reference to the maximum elongation of the composite, the Examiner has improperly sustained the rejections of the pending claims.

The Examiner has also relied upon this truncated quote to state that there is no support for this limitation in the specification (Final Office Action, p.3, lines 17-18 [paper no. 26]). As noted above, the Examiner has referred to Applicants’ alternate way of explaining a limitation rather than referring to the claim limitation itself. The claim language clearly calls for “the composite having a maximum elongation of at least about 85% of the elongation of the elongated elastic member.” Support for this limitation may be found in the Specification, p. 7, lines 6-10.

The Examiner also states that:

[t]he current claim language does not specify the amount of elongation to be compared to the maximum elongation of the composite material.

Therefore, the Examiner’s position that the “elongation of an elastic”

member refers to the maximum elongation of the elastic member while the composite is being stretched reads on the claim language.”

(Final Office Action, p. 3, line 21 though p. 4, line 3).

This contention is also incorrect. The “amount of elongation to be compared” is not required by the claims. Independent Claims 1 and 48 simply require that “the stretchable composite material [have] a maximum elongation of at least about 85% of the elongation of the elastic member.” (see Claims 1 and 48). Thus, whatever the elongation is of the elastic member, the composite material will have a maximum elongation of at least 85% of that elongation of the elastic member. A set value for the amount of elongation is not required. Thus, the Examiner’s position as it reads on the claim language is incorrect.

Moreover, the Examiner’s assertion in the Final Office Action that the Specification only provides support “for the ratio to be the maximum composite elongation to the initial composite elongation of the elastic member. (page 7, lines 4-6)” is clearly erroneous. (Final Office Action, p. 4, lines 4-6). The Examiner’s assertion misconstrues the specification by ignoring the disclosure at line 3 of page 7 and instead relying upon only lines 4-6. The relevant section of the Specification provides in its entirety: “Thus, the elastic composites of the present invention allow for a much greater use of the elongation put into the strands and provide for a material that for the same initial elongation can have a substantially larger maximum elongation.” (Specification, page 7, lines 3-6). This statement merely asserts that one of the benefits of the present invention is that the elastic composites provide for a material having a larger maximum elongation than a material not utilizing the elastic composites of the present invention, even though both materials may have the same initial elongation. In fact, the sentence immediately after the portion of the Specification referred to by the Examiner states: “For example, the composite material of the present invention has an elongation of at least about 85% of the elongation of the elastic material....” (Specification p. 7, lines 6-8). This language clearly provides support for the limitations found in the claims. Thus, the Examiner’s statement that there is no support for this claim limitation is erroneous.

Moreover, the Examiners' repeated reliance upon truncated citations illustrates the fundamental weakness and erroneous nature of the Examiner's rejection.

4. The "At Least About 85% Claim Limitation"

Before setting forth the specific arguments addressing the "Issues" section above, a discussion regarding one of the main limitations at issue is provided. This discussion is useful to understanding why the pending claims are distinguishable over the prior art. Pending independent claims 1 and 48 recite: "the composite having a maximum elongation of at least about 85% of the elongation of the elongated elastic member." This limitation will hereinafter be referred to as the "at least about 85% claim limitation".

The present invention pertains to, among other things, a stretchable composite material comprising one or more elongated elastic members located between a first layer and a second layer, wherein the composite material has a maximum elongation of at least about 85% *of the elongation of one or more of the elongated elastic members*. Support for this limitation may be found in the application as follows: Specification, p. 22, claim 1; p. 1, line 23 through p. 2, line 9; p. 4, lines 2 – 29; p. 6, line 22 through p. 7, line 10.

The "at least about 85%" claim feature refers to the maximum elongation of the composite material **as a percentage of the elongation of the elastic member** captured in the composite material. The 'at least about 85%' claim feature does *not* refer to merely the percent elongation of the composite material. Applicants respectfully point out that the claim feature "the composite having a maximum elongation of at least about 85% of the elongation of an elastic member" of the present invention refers to a relationship between (1) the elongation of the *composite material* and (2) the elongation of the *elongated elastic member(s)* that were incorporated in that composite material. That is, the 'at least about 85%' claim feature refers to a composite material of the present invention where the maximum composite elongation is at least about 85% of the elongation of the component elastic member(s) incorporated into that composite.

The Specification teaches, for example at page 6, line 27 through page 7, line 10, that the composite materials of the instant invention allow for a greater use of the elongation of one or more of the elastic members initially incorporated into the composite

material (the initial elongation), to produce composite materials that have a maximum elongation that is at least about 85% of the initial elongation of one or more of the elastic members located between the first and the second layers of the composite material. *See, e.g., Specification, p. 6 and 7.*

For example, if an elastic member under 250% elongation (i.e., elongation of the elongated elastic member) is captured between a first and a second layer to produce a composite material of the present invention and the composite material then allowed to retract to a resting state, then the composite material would have a maximum elongation of at least 212.5% (i.e., composite elongation) relative to the retracted “resting” state of the composite material – which corresponds to a maximum composite material elongation that is 85% of the elongation of the elastic material incorporated into the composite layer (i.e., the 212.5% composite elongation being at least about 85% of the 250% elongation of the initial elongated elastic member). (*Specification, p. 6, line 27 through p. 7, line 10*).

The Examiner improperly construes the claim feature “the composite having a maximum elongation of at least about 85% of the elongation of the elastic member” by conflating the maximum elongation of the *composite* and the elongation of the *elongated elastic members*. Accordingly, the Examiner does not correctly identify: (1) the elongation of a component elastic member incorporated in the composite structure and (2) the subsequent, separate elongation of the composite multilayer structure from an unstretched (relaxed) state to maximum extension. By not correctly identifying these elements, the Examiner has wrongfully sustained the claim rejections in view of the cited references.

5. Claims 1, 3, 5-9, 15, 17, 18 and 48-50 are not Anticipated by Johnson

The Examiner has rejected claims 1, 3, 5-9, 15, 17, 18 and 48-50 as anticipated by U.S. Patent 3,371,668 to Johnson. Specifically, in the Final Office Action [Paper No. 26], the Examiner asserts that:

...the claims do not claim or have any requirement for the initial elongation value of the elastic member. Using Applicant’s method of calculating the ratio of elongation from page 5 of the amendment response of record in

paper #25, the initial elongation of the elastic members is 15% and the composite elongation is 100% giving a ratio of 100/15, which is well over 600%.

Final Office Action, p.4, line 21 through p. 5, line 3.

As Applicants have noted above, the Examiner has erroneously construed the statement in the Specification about the initial elongation values in the composite materials. The claims do not contain a limitation about the initial elongation value of the elastic members because one is not required. Simply put, regardless of the actual elongation value of the elastic members, the stretchable composite material will have a maximum elongation of at least about 85% of the elongation of the elastic member.

Moreover, the mathematics utilized by the Examiner make no sense and do not read on the language of the claims because the Examiner has not calculated the elongation of the composite material utilizing the ratio of claim 1. As is stated in the claims, the maximum elongation of the composite material is at least about 85% of the elongation of the elastic member. Thus, using the Examiner's example above, a composite will have a maximum elongation of 100% when the elastic members have an elongation of approximately 118% or less (i.e. a 100% composite elongation is 85% of the 118% elastic member elongation).

Applicants respectfully assert that Johnson does not anticipate the instant invention because Johnson does not teach or suggest at least the "maximum elongation of at least about 85% of the elongation of the elastic member" claim feature of independent claims 1 and 48, or of claims that depend on claim 1 and claims that depend from claim 48, of the instant invention. Dependent claims include all the limitations of the claims on which they depend. 35 U.S.C. § 112, ¶4 (2002); 37 C.F.R. § 1.75(c); MPEP 608.01(i).

Johnson teaches a composite fabric made from elastic strands that are held under sufficient tension to provide at least 15% strand elongation while the composite is made. Johnson at col. 1, lines 64-66. To make a composite fabric of Johnson that has a 100% elongation, Johnson teaches elongation of the elastic strands included in the composite fabric to "a little better than twice their original length." Johnson at col. 4, lines 55-61. In contrast, and as noted above in the example set forth by the Examiner, the composite

materials claimed in claims 1, 3, 5-9, 15, 17, 18 and 48-50 can achieve 100% composite elongation with an elastic elongation of 118% or less (i.e., a 100% composite elongation is 85% of the 118% elastic elongation). Johnson does not teach or suggest the claimed composites of the instant invention. For example, Johnson teaches that a composite fabric capable of 100% maximum elongation requires elastic strands having an elongation of “a little better than” 200%, rather than 118% or less, as taught by the instant invention. Thus, Johnson does not disclose or suggest the claimed composite material having a maximum elongation of at least about 85% of the elongation of the elastic members. In fact, Johnson illustrates the substantial and significant improvements that Applicants’ invention has obtained over the prior art.

Accordingly, Appellants respectfully submit that claims 1, 3, 5-9, 15, 17, 18 and 48-50 are distinguishable over Johnson and contained allowable subject matter.

6. Claims 1, 2, 4, 6-9, 15, 17 And 18 are not Anticipated Under 35 U.S.C. 102(b) or Rejected Over 35 U.S.C. 103(a) by Smith

The Examiner relies on the Office Action of January 18, 2002 [paper no. 23] (the “Prior Office Action”) to sustain the rejection of claims 1, 2, 4, 6-9, 15, 17 and 18 as anticipated under 35 U.S.C. § 102(b) or, in the alternative, as obvious over Smith under 35 U.S.C. § 103(a). Specifically, the Prior Office Action asserts in relevant part:

The structure is achieved by forming a layer of nonintersecting elastic strands, tensioning the strands, positioning the tensioned strands between two layers of breathable material, joining the layers together, and releasing the tension in the strands and thereby permitting them to contract and draw the outer layers into pleats or shears. The nonintersecting elastic strands are typically configured so that they are slightly out of parallel and/or nonuniformly tensioned so as to cause the pleats to form slightly irregularly. See col. 2, lines 53-68. ...The nonintersecting elastic strands can either be a plurality of strands or a single strand made of Lycra. (col. 3, lines 51-60 and figures 1 and 6)...

Although Smith does not explicitly teach the limitations the [sic.] maximum elongation of the composite is at least about 95% of the elongation of an elastic member, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar

materials (i.e. Lycra strands sandwiched between breathable webs) and in the similar production steps (i.e. tensioning the elastic strands when bonding to the breathable webs) used to produce the elastic structure. The burden is on the Applicants to prove otherwise. *In re Fitzgerald*, 205 U.S.P.Q. 594. In the alternative, the claimed elongation would obviously have been provided by the process disclosed by Smith. Note *In re Best*, 195 U.S.P.Q. 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

Prior Office Action, p. 6, line 14 through p.7, line 12.

The claims are not anticipated or obvious under Smith because Smith does not teach or suggest at least the feature that the “maximum elongation of at least about 85% of the elongation of the elastic member” recited in independent claim 1, and in all the claims dependent therefrom. Dependent claims include all the limitations of the claims on which they depend. 35 U.S.C. § 112, ¶4 (2002); 37 C.F.R. § 1.75(c); MPEP 608.01(i).

Smith teaches a layered structure made from elastic strands that are held under tension while the composite is made. Smith at col. 2, lines 59-60. Smith teaches that elastic strands can be “tensioned” while the layered structure is made, for example while an adhesive is applied, and then the tension in the strands released to form the final layered structure. Smith at col. 5, lines 7-16; col. 5, lines 55-66. Smith also teaches that tensioning of the strands can be varied to change the elastic properties of the layered structure. Smith at col. 6, lines 3-6. However, Applicants can find no teaching or suggestion in Smith as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure. Thus, the complete absence of any teaching or suggestion of the claimed ratio removes Smith as a reference under both § 102(b) and § 103(a) with respect to claims 1, 2, 4, 6-9, 15, 17 and 18 and renders these claims allowable.

In contrast, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Appellants respectfully submit that claims 1, 2, 4, 6-9, 15, 17 and 18 are distinguishable over Smith and contained allowable subject matter.

7. Claims 1, 3 and 5-18 are not Anticipated Under 35 U.S.C. 102(b) or Rejected Over 35 U.S.C. 103(a) by Herrin et al.

The Examiner rejected claims 1, 3 and 5-18 as anticipated under 35 U.S.C. § 102(b) or, in the alternative, as obvious under 35 U.S.C. § 103(a) over Herrin et al. (“Herrin”). Herrin issued on January 13, 1998. The Appellants’ application was filed on December 18, 1998. Thus, the Examiner’s reliance on Herrin as a § 102(b) reference is unfounded. This fundamental error in the law, coupled with the Examiner’s repeated reliance on truncated quotations and references to the Specification further illustrates the erroneous nature of the Examiner’s rejections.

In addition to being wrong about the law, the Examiner’s interpretation of Herrin is factually inaccurate. Specifically, the Prior Office Action, which the Examiner relied upon in the Final Office Action to sustain this rejection, asserts in relevant part:

The elastic strips are secured to the first and second elongate layer in stretched condition and gathers are formed in the first and second layer when the elastic strips are relaxed... .

Prior Office Action, p. 7, lines 19-20 [paper no. 23].

The Prior Office Action continues:

Although Herrin does not explicitly teach the limitations the [sic.] maximum elongation of the composite is at least about 95% of the elongation of an elastic member, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. elastic strands sandwiched between breathable webs) and in the similar production steps (i.e. tensioning the elastic strands when bonding to the non-elastic webs) used to produce the elastic structure. The burden is on the Applicants to prove otherwise. *In re Fitzgerald*, 205 U.S.P.Q. 594. In the alternative, the claimed elongation would obviously have been provided by the process disclosed by Smith. Note *In re Best*, 195 U.S.P.Q. 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

Prior Office Action, p. 8, lines 5-14 [paper no. 23].

The claims are not anticipated or obvious under Herrin because Herrin does not teach or suggest at least Herrin does not teach or suggest at least the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of independent claim 1 as amended herein, or of claims dependent therefrom. Dependent claims include all the limitations of the claims on which they depend. 35 U.S.C. § 112, ¶4 (2002); 37 C.F.R. § 1.75(c); MPEP 608.01(i).

Herrin teaches an undergarment waistband made from a first layer and a second layer that are combined with a plurality of stretched elongate elastic strips, wherein the tension in the plurality of elastic strips can be relaxed after the waistband is assembled so as to form a plurality of gathers in the first and second layers. Herrin at col. 3, lines 61-62; col. 4, lines 21-26. Herrin teaches that the elastic strips can be adhered to the first and second layers in an “extended position, so that when released to the retracted or relaxed position, the waistbands have a plurality of gathers formed therein.” Herrin at col. 8, lines 44-48. However, Applicants can find no teaching or suggestion in Herrin as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure. Thus, the complete absence of any teaching or suggestion of the claimed ratio removes Herrin as a reference under both § 102(b) and § 103(a) with respect to claims 1, 3 and 5-18 and renders these claims allowable.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Appellants respectfully submit that claims 1, 3 and 5-18 are distinguishable over Herrin and contained allowable subject matter.

8. Claims 1, 2, 4, 6-9, 15, 17 and 18 are not Unpatentable Under 35 U.S.C. § 103(a) over Smith in View of U.S. Patent 4,720,415 to Vander Wielen et al.

The Examiner rejected claims 1, 2, 4, 6-9, 15, 17 and 18 as being obvious under 35 U.S.C. § 103(a) over Smith in view of Vander Wielen et al. (“Vander Wielen”). The Examiner relied upon the Prior Office Action to sustain this rejection.

Smith does not render the instant invention obvious in light of Vander Wielen because neither reference teaches or suggests the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of independent claim 1 as amended herein, or of claims dependent therefrom. Dependent claims include all the limitations of the claims on which they depend. 35 U.S.C. § 112, ¶4 (2002); 37 C.F.R. § 1.75(c); MPEP 608.01(i).

With respect to Smith, Applicants can find no teaching or suggestion in Smith as to how much the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure.

With respect to the Vander Wielen reference, the Office Action states:

Vander Wielen further discloses that the stretchable composite material elongation is dependent on the amount the elastic web is stretched, i.e. if it is desired to prepare a composite material stretchable to 100 percent elongation, a 100 cm length of elastic web may be stretched to a length of, for example 220 cm (120 percent elongation) and bonded at spaced-apart locations to a 220 cm length of non-elastic material. See column 9, lines 24-60 [of Vander Wielen].

Prior Office Action, p. 9, lines 3-7.

The Office Action misconstrues the “at least about 85%” limitation by confusing the percent elongation of the composite material with the claimed relationship between the elongation of the elastic web incorporated in the composite material and the elongation of the composite material, as discussed above.

Vander Wielen teaches a composite elastic material made from an elastic web held under at least about 25% elongation while the composite is made. Vander Wielen at col. 2, lines 40-58. The stretchable composite material of Vander Wielen does not have a composite material that stretches to at least about 85% of the elongation of its component elastic web. Vander Wielen merely discloses a composite multilayer structure with an elongation of 100% made from an elastic web stretched to 120% elongation. Vander Wielen at col. 9, lines 40-43; Prior Office Action, p. 9, lines 3-7. Therefore, the

maximum elongation of this composite (i.e., 100%) is 83% (i.e., 100%/120%) of the elongation of the elastic web (i.e., 120%).

In contrast, the composite materials claimed, for example, in claims 1, 2, 4, 6-9, 15, 17 and 18 can achieve 100% composite elongation with an elastic elongation of 118% or less (i.e., a 100% composite elongation is 85% of the 118% elastic elongation). Thus, Vander Wielen does not teach or suggest the feature that the composite material has a minimum elongation of at least about 85% of the elongation of the elastic members as claimed in independent claim 1.

Because of the complete absence of any teaching or suggestion of the required claim elements in each of these references, there is no suggestion to combine them. Accordingly, Smith does not render the instant invention obvious in light of Vander Wielen and Appellants respectfully submit that claims 1, 2, 4, 6-9, 15, 17 and 18 are distinguishable and contain allowable subject matter.

9. Claims 1-3 and 5-18 are not Unpatentable Under 35 U.S.C. § 103(a) over Herrin et al. in View of Vander Wielen et al.

The Examiner has rejected claims 1, 3 and 5-18 as being obvious under 35 U.S.C. § 103(a) over Herrin in view of Vander Wielen. The Examiner relied upon the Prior Office Action to sustain this rejection.

Applicants respectfully assert that Herrin does not render the instant invention obvious in light of Vander Wielen because neither reference teaches or suggests the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of independent claim 1, or of dependent claims 3 and 5-18.

The teachings of Herrin are discussed above. Although the Examiner concedes that Herrin does not “explicitly teach the limitations [sic.] the maximum elongation of the composite is at least about 95% of the elongation of an elastic member...”, Prior Office Action, p. 9, lines 21-22, the Examiner states that the 95% elongation is suggested by Vander Wielen. Prior Office Action, p. 10, lines 10-19. Applicants respectfully assert that this recitation of the Prior Office Action improperly suggests that the recitation of “elongation of an elastic member” refers to the maximum elongation of the elastic member while the composite is being stretched, rather than the claimed ratio of the

elongation of an elastic member with reference to the maximum elongation of the composite. In other words, (1) an elongated elastic member includes a certain maximum elongation (i.e., the elongation of the elastic member(s)), (2) the composite also has a maximum elongation (i.e., the composite elongation between being fully relaxed (unstretched) and fully extended (stretched)), and (3) the present invention claims that the ratio of the maximum composite elongation to the maximum elongation of the elastic member(s) is at least about 85%.

Appellants can find no teaching or suggestion in Herrin as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure.

Vander Wielen teaches a composite elastic material made from an elastic web held under at least about 25% elongation while the composite is made. Vander Wielen at col. 2, lines 40-58. To make a composite fabric of Vander Wielen that has a 100% elongation, Vander Wielen teaches elongation of the elastic web included in the composite elastic material to 120%. Vander Wielen at col. 9, lines 32, 43. In contrast, the composite materials claimed in claims 1, 3 and 5-18 can achieve 100% composite elongation with an elastic elongation of 118% or less (i.e., a 100% composite elongation is 85% of the 118% elastic elongation). Contrary to the Examiner's assertion, Vander Wielen does not teach or suggest the composites of the instant invention.

Because of the complete absence of any teaching or suggestion of the required claim elements in each of these references, there is no suggestion to combine them. Moreover, the Examiner has relied on several references in order to support the obviousness rejections of many of the claims, i.e., Herrin, Smith (discussed above), and Vander Wielen. If anything, the need to rely upon and combine multiple references, without any *suggestion* to combine them, supports Applicants' position of non-obviousness.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Herrin does not render the instant invention obvious in light of Vander Wielen and Appellants respectfully submit that claims 1, 3 and 5-18 are distinguishable and contain allowable subject matter.

10. Claims 2 and 4 are not Unpatentable under 35 U.S.C. § 103(a) over Johnson or Herrin et al. in view of Smith

The Office Action rejected claims 2 and 4 as being obvious under 35 U.S.C. § 103(a) over Johnson or Herrin in view of Smith. Specifically, the Prior Office Action, which the Examiner relied upon in the Final Office Action to sustain this rejection, asserts in relevant part:

Both Johnson and Herrin disclose all the limitations of the instant claimed invention except for the elastic members are slightly out of parallel and the elastic members comprise a single strand...

It would have been obvious to one of ordinary skill in the art to make the elastic strands of either Johnson or Herrin slightly out of parallel and/or with one strand as taught by Smith because the effect of having the pleats form slightly irregularly reduces folds that can pinch the skin or pull hairs.

Prior Office Action, p. 11, line 1 through p. 12, line 2 [paper no. 23].

Neither Johnson nor Herrin, nor the combination thereof, renders the instant invention obvious in light of Smith because none of these references teaches or suggests the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of dependent claims 2 and 4.

As discussed above, Johnson does not teach or suggest the composites of the instant invention. Applicants can find no teaching or suggestion in Herrin as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic strands are stretched and the maximum elongation of the layered structure. The teachings of Herrin are further discussed above.

Likewise, Applicants can find no teaching of Smith that teaches or suggests the instant invention. The teachings of Smith are further discussed above. Applicants can find no teaching or suggestion in Smith as to *how much* the elastic strands of the layered material are stretched, or whether there is any correlation between the amount the elastic

strands are stretched and the maximum elongation of the layered structure. Because of the complete absence of any teaching or suggestion of the required claim elements in each of these references, there is no suggestion to combine them.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, neither Johnson nor Herrin, nor the combination thereof, renders the instant invention obvious in light of Smith and Appellants respectfully submit that claims 2 and 4 are distinguishable and contain allowable subject matter.

11. Claims 10-14 and 16 are not Unpatentable under 35 U.S.C. § 103(a) over Johnson in view of Dobrin

The Office Action rejected claims 10-14 and 16 as being obvious under 35 U.S.C. § 103(a) over Johnson in view of Dobrin. The Examiner relied upon the Prior Office Action to sustain this rejection.

Applicants respectfully assert that Johnson does not render the instant invention obvious either alone, or in combination with Dobrin, because neither of these references teaches or suggests the “maximum elongation of at least about 85% of the elongation of the elastic member” claim feature of claims 10-14 and 16.

As discussed above, Johnson does not teach or suggest the composites of the instant invention. Johnson teaches that a composite fabric capable of 100% maximum elongation requires elastic strands having an elongation of “a little better than” 200%, rather than 118% or less, as taught by the instant invention.

Dobrin teaches an absorbent article comprising a breathable backsheet (Dobrin at col. 1, lines 51-53), such that the absorbent article can also include elasticized leg cuffs made from one or more elastic strands (Dobrin at col. 11, lines 37-39) and an elasticized waistband (Dobrin at col. 11, lines 58-61). Dobrin provides no teaching on the amount of elongation of the absorbent article or of the elasticized portions thereof. Because of the complete absence of any teaching or suggestion of the required claim elements in each of these references, there is no suggestion to combine them.

In contrast, as discussed above, the present invention teaches a correlation between the elongation of the elastic strand and the maximum elongation of the composite material comprising that strand.

Accordingly, Johnson does not render the instant invention obvious in light of Dobrin and Appellants respectfully submit that claims 10-14 and are distinguishable and contain allowable subject matter.

12. Conclusion

It is respectfully submitted that none of the cited references provide the *prima facie* showing that would render Appellants' claimed invention unpatentable as anticipated under the legal doctrine set forth in *In re Spada*, 911 F.2d 705, 709, 15 U.S.P.Q.2d 1655, 1658 (Fed. Cir. 1990). Nor do any of the cited references provide the *prima facie* showing that would render Appellants' claimed invention obvious under the legal doctrine set forth in *In re Rouffet*, 149 F.3d 1350, 1357-58, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998). The teachings of Appellants' claimed invention and the teachings of the cited references are not substantially identical in structure of composition. The cited references further do not teach or suggest the structure which is present in Appellants' claim invention, thus failing to teach each and every element of those claims. Appellants submit that the present invention is fully patentable over the cited reference and thus, the Examiner's rejection should be REVERSED.

Respectfully submitted,

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APPENDIX

Claims 1-12, 14-18 and 48-50 are pending.

1. A stretchable composite material comprising:
 - a) a first layer;
 - b) a second layer;
 - c) at least one elongated elastic member;
 - d) the elastic members located between the first and second layers and being in contact with the first and second layers;
 - e) regions of securement securing the elastic members, first and second layers; and
 - f) the stretchable composite material having a maximum elongation of at least about 85% of the elongation of the elastic member.
2. The composite material of claim 1 in which the elastic members are slightly out of parallel.
3. The composite material of claim 1 in which the elastic members are roughly parallel.
4. The composite material of claim 1 in which the plurality of elastic members is comprised of a single strand.
5. The composite material of claim 1 in which the regions of securement are approximately the same size and are spaced approximately equally apart from each other.
6. The composite material of claim 1 in which the maximum elongation of the composite is at least about 90% of the elongation of an elastic member.
7. The elastic composite material of claim 1 in which the maximum elongation of the composite is at least about 95% of the elongation of an elastic member.

8. The composite material of claim 1 further comprising at least one stiffened edge.
9. The composite material of claim 1 wherein the first layer further comprises a breathable material.
10. The composite material of claim 1 wherein the first layer further comprises a non-breathable material.
11. The composite material of claim 10 wherein the second layer further comprises a breathable material.
12. The composite material of claim 10 wherein the second layer further comprises a non-breathable material.
14. The composite material of claims 1, 9, or 10 wherein the first layer further comprises a water impervious material.
15. The composite material of claims 1, 9, or 10 wherein the first layer further comprises a water pervious material.
16. The composite material of claims 1, 11, or 12 wherein the second layer further comprises a water impervious material.
17. The composite material of claims 1, 11, or 12 wherein the second layer further comprises a water pervious material.
18. The composite material of claim 1 further comprising zones of attachment.
48. (Amended) A stretchable composite material comprising: a first layer, the first layer being a breathable material; a second layer, the second layer being a breathable material; at least two elastic members, the elastic members positioned in between the first and second layers; regions of securement securing the elastic members, the first layer and the second layer; the regions of securement further comprising attached zones; the

attached zones extending traverse and across a majority of the elastic members; wherein the stretchable composite material has a maximum elongation of at least about 85% of the elongation of the elastic members.

- 49. The composite material of claim 48 further comprising a stiffened edge.
- 50. An article of apparel comprising the composite material of claims 1 or 48.